

### **DETAILED ACTION**

**1.** This communication is in response to Applicant's Response ("Response") to Office Action dated July 8, 2009, filed October 26, 2009.

**1-1.** Claims 1-14 have been canceled. Claims 15-30 have been added. Claims 15-30 are pending.

**1-2.** Claims 15-30 have been examined and rejected.

#### ***Drawings***

**2.** The replacement drawing sheets received on October 26, 2009, incorporating the proposed drawing corrections to Figures 4a through 4g are acceptable. The objection to the drawings has been withdrawn.

#### ***Specification***

**3.** All the amended paragraphs of the specification are approved. The objections to the specification have been withdrawn.

**4.** The Examiner requests detailed information about the "construction manual" (dated before 2003) delivered by Applicant's company to company's customer as described in lines 22-26 of page 1 and the "Design Manual" (dated before 2003) as described in line 1 of page 17 in the specification because they appear to be reasonably necessary to the examination of this application and cannot be found.

***Claim Rejections - 35 USC § 112***

- 5.** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 6.** Claims 15-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**6-1.** Claim 15 recites the limitation, “calculating a specific *load capability of the specific profiled, composite pulltruded element* of the specific dimensions and performing a comparison of the specific load capability with the *load requirements of the structure* for determining whether or not the load requirements are fulfilled” in lines 14-17 of the claim, which is vague and indefinite. As described in lines 3-11 of page 2, “This technique of dimensioning, designing and *building a load-bearing structure* from *profiled, composite pulltruded elements* involves a number of individual or separate steps, ...” In other words, the *load-bearing structure* are built from a plurality of *profiled, composite pulltruded elements*. Therefore, it appears the load requirements are never fulfilled by comparing the calculated *load capability* of the specific *profiled, composite pulltruded element* with the *load requirements of the structure* unless the *load-bearing structure* has only one *profiled, composite pulltruded element*. Clarification of the metes and bounds, via clearer claim language, is requested. For the purpose of claim examination, the Examiner will interpret the recited “load-bearing structure” is the recited “profiled, composite pulltruded element”.

- 6-2.** Claims not specifically rejected above are rejected as being dependent on a rejected claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plaskoff et al., U.S. Patent Application Publication No. 2001/0032062 A1 published October 18, 2001, in view of Beall, U.S. Patent 4,983,453 issued January 8, 1991, and further in view of Gan et al., “Simulations of mechanical performance of pultruded I-beams with various flange-web conjunctions”, Composites Part B: Engineering, Volume 30, Issue 4, June 1999, pages 423-429.

8-1. Regarding claim 15, Plaskoff et al. disclose a method of selecting for delivery a [[profiled, composite pultruded]] element for a load-bearing structure, the method comprising:

i) providing [[load]] requirements and dimensions of the load-bearing structure (depending on answers inputted by the customer in response to questions; paragraph [0058], lines 9-14; the room designer program, in one embodiment, can prompt the customer to input dimensions such as, e.g., length, width, dimensions of appliances, fixtures, and other useful dimensions, paragraph [0067], lines 5-9);

ii) providing a computer having an internet connection, an input means and an output means (use an Internet browser to log on to a website, paragraph [0052], lines 1-6; the customer can be presented with a home page, paragraph [0053]), and a server providing a homepage and having an internet connection (the contractor’s website at, e.g., a contractor server computer,

Art Unit: 2128

paragraph [0057], lines 4-9), the server further including a database including a list of [[profiled, composite pulltruded]] elements (the customer can select from lists of options, paragraph [0056], lines 8-9) and a calculation program for calculating the [[load]] capability of any of the [[profiled, composite pulltruded]] elements in the list and having specific dimensions, the homepage having links to the database and to the calculation program (The BATHFINDER expert system of step 236, can use an artificial intelligence inference engine and/or knowledge base to arrive at a recommended room design, paragraph [0058], lines 9-14);

iii) addressing the homepage and selecting from the list of [[profiled, composite pulltruded]] elements included in the database a specific [[profiled, composite pulltruded]] element and defining specific dimensions thereof corresponding to the dimensions of the load-bearing structure (the customer agrees to take one of the recommended rooms, paragraph [0059], lines 6-8);

iv) addressing the calculation program from the homepage for calculating a specific [[load]] capability of the specific [[profiled, composite pulltruded]] element of the specific dimensions and performing a comparison of the specific [[load]] capability with the [[load]] requirements of the structure for determining whether or not the [[load]] requirements are fulfilled (the customer can verify the selections of the room design, paragraph [0061], lines 1-2);

v) if the comparison performed in step iv) establishes a fulfilment of the [[load]] requirements, forwarding a positive validation response from the calculation program via the homepage and outputting the positive validation response from the computer; and vi) if the comparison performed in step iv) establishes a non-fulfilment of the [[load]] requirements, forwarding, via the homepage, and outputting from the computer a negative validation response

Art Unit: 2128

and data identifying an alternative [[profiled, composite pultruded]] element selected by the calculation program from the list, wherein the calculation program calculates the [[load]] capability of the alternate [[profiled, composite pultruded]] element for comparison with the [[load]] requirements, thereby selecting an alternative [[profiled, composite pultruded]] element from the list that fulfills the [[load]] requirements and that has the specific dimensions (the customer verifies and approves the selections, paragraph [0061], lines 2-4).

Plaskoff et al. fail to expressly disclose using the element is a profiled, composite pultruded element.

Beall discloses, “Pultruded products are used in a great variety of applications. In many places they have replaced metallic construction materials, particularly those used in highly corrosive environments. Structural beams, floor gratings, handrails, ladders, and many similar products are now made by a pultrusion process.” (Beall, column 1, line 33-38)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Plaskoff et al. to incorporate the teachings of Beall because, as suggested by Beall, pultruded products are particularly used in highly corrosive environments such as in bathroom.

Plaskoff et al. also fail to expressly disclose that the requirement is load requirement and the capability is load capability.

Gan et al. disclose simulations of mechanical performance of pultruded I-beams. Specifically, Gan et al. disclose in the Abstract, “Fringe-web conjunction of pultruded I-beams has a significant effect on their ultimate strength and other properties. ... The variations in

Art Unit: 2128

stiffness, maximum compressive and tensile stresses and the critical bucking load of the beams with various flange-web connections are evaluated.”

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Plaskoff et al. to incorporate the teachings of Gan et al. because, as suggested by Gan et al., load evaluation of the beams with various flange-web connections affects their ultimate strength.

**8-2.** Regarding claim 16, Plaskoff et al. further disclose comprising:

vii) returning an order to the homepage for delivery of the specific profiled, composite pulltruded element if the validation response is positive, and for delivery of the alternative profiled, composite pulltruded element if the validation response is negative (the renovation order as created ... be sent to a sales department of the renovation system, paragraph [0074], lines 1-4).

**8-3.** Regarding claim 17, Plaskoff et al. further disclose comprising:

viii) delivering the specific profiled, composite pulltruded element if the validation response is positive, and the alternative profiled, composite pulltruded element if the validation response is negative (construction and installation can begin. ... In one embodiment, the contractor can guaranty completion within a set time period, paragraph [0078], lines 1-6).

**8-4.** Regarding claim 18, Plaskoff et al. further disclose comprising:

if the comparison performed in step iv) establishes the non-fulfillment of the load requirements, selecting, by means of the calculation program, an alternative dimension of the specific profiled, composite pulltruded element and calculating the load capability thereof for comparison with the load requirements for selecting an alternative dimension of the profiled,

Art Unit: 2128

composite pulltruded element that fulfills the load requirements, and forwarding data identifying the alternative dimension of the profiled, composite pulltruded element along with the negative validation response to the computer for output of the validation response from the computer (the customer can make changes as necessary to the selected design including modifying dimensions, materials, and other features of the renovation construction project design, paragraph [0063], lines 3-6).

**8-5.** Regarding claim 19, Plaskoff et al. further disclose wherein step i) comprises:

defining a static system (several high level depictions of floor plans can be displayed to the customer, paragraph [0065], lines 3-6),

defining a combination of loads on the load-bearing structure (additional more specific layouts of rooms similar to the high level room depiction, can be displayed, but, e.g., can be illustrated in different orientations, and variations, paragraph [0065], lines 21-26), and

providing a definition of support of the load-bearing structure including a definition selected from the group consisting of one or more of simple support, elastic support, fixation, set-up, Charnier suspension, and hinged suspension (the customer can select the depiction of the room that most closely represents the room “as built” or as desired to be “as renovated.”, paragraph [0065], lines 26-29).

**8-6.** Regarding claim 20, Plaskoff et al. further disclose wherein the database further includes an additional list of fittings to be used in combination with the profiled, composite pulltruded elements, and wherein the calculation program calculates the load capability of any of the fittings in the additional list in combination with the specific profiled, composite pulltruded element (the

Art Unit: 2128

customer can be prompted to select other optional features for the room in an upgrade step, paragraph [0071], lines 1-13).

**8-7.** Regarding claim 21, Plaskoff et al. further disclose wherein the database further includes a supplementary list of connections, and wherein the calculation program calculates the load capability of any of the profiled composite pulltruded elements in combination with such connection (the customer advantageously, in one embodiment, can select materials for the renovation construction project including, e.g., appliances, cabinetry, fixtures, tile, and other materials required in renovating the selected room, paragraph [0067], lines 17-21).

**8-8.** Regarding claim 22, Plaskoff et al. further disclose wherein the list of profiled, composite pulltruded elements is organized in a plurality of clusters of profiled, composite pulltruded elements having the same overall geometrical configuration, the clusters being ordered in increasing or decreasing load capabilities of the profiled, composite pulltruded elements (the customer can be prompted to select other optional features for the room in an upgrade step, paragraph [0071], lines 1-13).

**8-9.** Regarding claim 23, Plaskoff et al. further disclose wherein the calculation program selects, if the comparison in step iv) establishes the non-fulfilment of the load requirements, an alternative specific profiled, composite pulltruded element from one of the plurality of clusters that includes the specific profiled, composite pulltruded element having a higher load capability (the customer could select several optional features that could be made available, paragraph [0071], lines 1-13).

**8-10.** Regarding claim 24, Plaskoff et al. further disclose comprising:



if the comparison performed in step iv) establishes the fulfilment of the load requirements, selecting, by means of the calculation program, an alternative specific profiled, composite pulltruded element from one of the plurality of clusters including the specific profiled, composite pulltruded element having a lower load capability, the calculation program performing a calculation of an alternative specific load capability of the load-bearing structure comprising the alternative profiled, composite pulltruded element and performing a comparison for comparing the specific alternative load capability with the load requirements of the structure for determining whether or not the load requirements are fulfilled (the customer can determine whether they like the options provided, paragraph [0067], lines 25-28), wherein step v) includes forwarding the positive validation response regarding the alternative profiled, composite pulltruded element from the calculation program via the homepage if the comparison in step iv) establishes the fulfilment of the load requirements by the alternative profiled, composite pulltruded element, and, if the comparison performed in step iv) establishes the non-fulfilment of the load requirements by the alternative profiled, composite pulltruded element, forwarding no validation response from the calculation program via the homepage regarding the alternative profiled, composite pulltruded element (the customer can determine whether they like the options provided and, if so, can select to proceed to step 248 to verify their selections. In step 264, if the customer does not like the options provided as choices or would prefer to include custom features, then flow diagram 200 can refer the customer to a custom contractor, paragraph [0067], lines 25-32).

**8-11.** Regarding claim 25, Plaskoff et al. further disclose wherein the forwarding and outputting performed in steps v) and vi) further includes forwarding and outputting information

Art Unit: 2128

regarding the specific load capability determined in step iv) (the dimensions inputted are determined to be within acceptable threshold bounds, paragraph [0067], lines 14-17).

**8-12.** Regarding claim 26, Plaskoff et al. further disclose wherein the outputting performed in step v) further includes outputting drawings of the load-bearing structure composed of the specific profiled, composite pulltruded element, and wherein the outputting performed in step vi) includes outputting drawings of the load-bearing structure composed of the alternative profiled, composite pulltruded element (the renovation order as created ... be sent to a sales department of the renovation system, paragraph [0074]).

**8-13.** Regarding claim 27, Plaskoff et al. further disclose wherein the server includes an inventory program; wherein step v) further includes communicating the specific profiled, composite pulltruded element from the homepage to the inventory program for checking delivery times and stock of the specific profiled, composite pulltruded element and returning information regarding delivery times and stock of the specific profiled, composite pulltruded element to the homepage; and wherein step vi) further includes communicating the alternative profiled, composite pulltruded element from the homepage to the inventory program for checking delivery times and stock of the alternative profiled, composite pulltruded element and returning information regarding delivery times and stock of the alternative profiled, composite pulltruded element to homepage (obtain a schedule for a start date with the customer, paragraph [0076]; construction and installation can begin. ... In one embodiment, the contractor can guaranty completion within a set time period, paragraph [0078], lines 1-6).

**8-14.** Regarding claim 28, Plaskoff et al. further disclose wherein the server includes a bookkeeping program; wherein step v) further includes communicating the specific profiled,

Art Unit: 2128

composite pulltruded element from the homepage to the bookkeeping program for checking price information for the specific profiled, composite pulltruded element and returning the price information to the homepage; and wherein step vi) further includes communication the alternative profiled, composite pulltruded element from the homepage to the bookkeeping program for checking price information for the alternative profiled, composite pulltruded element and returning the price information for the alternative profiled, composite pulltruded element to the homepage (an award can include a discount equivalent to the cost of a toilet, paragraph [0013], lines 5-8).

**8-15.** Regarding claim 29, Plaskoff et al. further disclose comprising, prior to step i), the steps of determining the dimensions and load requirements of the load-bearing structure (the room designer program, in one embodiment, can prompt the customer to input dimensions such as, e.g., length, width, dimensions of appliances, fixtures, and other useful dimensions, paragraph [0067], lines 5-9).

**8-16.** Regarding claim 30, Plaskoff et al. further disclose a load-bearing structure built with at least one profiled, composite pulltruded element selected in accordance with the method recited in any of claims 15-19 (construction and installation can begin, paragraph [0078], lines 1-6).

### ***Applicant's Arguments***

**9.** Applicant argues the following:

**9-1.** Rejection under Section 112

(1) "Claims 5, 7, and 8 were rejected under 35 U.S.C. Section 112, second paragraph because of the lack of an antecedent basis for certain terms recited therein. These claims have

Art Unit: 2128

been replaced by new claims 21, 23, and 24 which depend from claims that provide the necessary antecedent basis.” (Page 9, paragraph 4, Response)

**9-2. Rejection under Section 103**

(2) “Claims 1-14 have been cancelled and replaced by new claims 15-30”. (Page 9, paragraph 5, Response)

(3) “Plaskoff, by contrast, lacks any suggestion of calculating the load capability (or a similar physical parameter) of a component having specific dimensions, nor does the reference suggest comparing the calculated load capability with the predetermined load-bearing requirements of the desired structure, and then using the basis of the comparison to select a pulltruded element that meets the requirements. Unlike Applicant’s claimed method, Plaskoff lacks any capability of offering an alternative component if a selected component does not fulfill desired load requirements. Plaskoff merely employs the user’s inputs as parameters for finding a suitable construction from a list of predetermined design options, without the calculation and comparison steps defined in Applicant’s claimed invention.” (Page 10, paragraph 2, Response)

(4) “Furthermore, nothing in the Plaskoff reference suggests that its method may be employed in selecting pulltruded elements. ... Nor is there any suggestion in Beall of selecting pulltruded elements in accordance with the method of Plaskoff. Thus, there would have been absolutely no motivation to those skilled in the pertinent arts to combine the references in the manner suggested by the Examiner.” (Page 10, paragraph 3, Response)

***Response to Arguments***

**10.** Applicant’s arguments have been fully considered.

Art Unit: 2128

**10-1.** Applicant's argument (1) is persuasive. The rejections of claims 5, 7, and 8 under 35 U.S.C. 112, second paragraph, in Office Action dated July 8, 2009, have been withdrawn.

**10-2.** Applicant's argument (2) is persuasive. The rejections of claims 1-14 under 35 U.S.C. 103(a) in Office Action dated July 8, 2009, have been withdrawn.

**10-3.** Applicant's arguments (3) and (4) are moot in view of the new ground(s) of rejection.

### ***Conclusion***

**11.** Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**12.** Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

Art Unit: 2128

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/  
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